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Reply to Office Action of March 14, 2005

REMARKS/ARGUMENTS

Claims 1-36 are pending in the application. Claims 1-36 stand rejected. Claims 1, 7, 11-12, 18, 22-23, 29, 33, 35 and 36 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,875,345 (Naito) in view of U.S. Patent No. 5,664,097 (Johnson_097). Claims 2, 13, and 24 stand rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 1, 12, and 23 above and further in view of U.S. Patent No. 5,682,475 (Johnson_475). Claims 3-6, 14-17, and 25-28 are rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 1, 12, and 23 above, and further in view of "System Mode Transition with Notification and Adoption," IBM Technical Disclosure Bulletin, September 1995, Vol. 38, Issue No. 9, pp. 153-154 (IBM). Claims 8-10, 19-21, and 30-32 are rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 7, 18, and 29 above and further in view of U.S. Patent No. 6,209,104 (Jalili). Claim 34 is rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claim 29 above, and further in view of U.S. Patent No. 6,282,553 (Flickner). No new matter has been added.

Rejection of Claims Under 35 U.S.C. §103(a)

Claims 1, 7, 11-12, 18, 22-23, 29, and 33 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,875,345 (Naito) in view of U.S. Patent No. 5,664,097 (Johnson_097). Regarding claims 1, 12, and 23, Naito in view of Johnson fails to teach or suggest continuing the operating session if the user performs an authentication-update process within a second predetermined time period after the operating session is suspended, and

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continuing the operating session if the user performs the **authentication process** after the

operating session is suspended and the second predetermined time period is exceeded. The

Office Action states that Naito does not explicitly teach performing authentication when the

system resumes within the second predetermined time period and asserts that it would have been

obvious to combine the reference with Johnson_097 because it would include a process to delay

locking up of a user interface as per teachings of Johnson_097.

Applicant traverses this assertion because the proposed motivation is not directed towards

the claim differences: namely, the delay in locking up of a user interface (which is alleged to

occur during the second predetermined time period) is not directed towards using an

authentication-update process that occurs during the second predetermined time period. The

voice recognition system of Johnson_097 merely functions to delay an inactivity timer (such as

used during the **first** predetermined time period), and is capable of only distinguishing with

limited confidence between valid user inputs and background noise. It is true that Johnson_097

teaches the training of the voice recognition system with a set of words, but Johnson_097 only

teaches that this training is for enabling the system to distinguish between valid user inputs and

background noise. There is no teaching or suggestion in the references that Johnson_097 be used

after the suspension of the operating system. Indeed, Johnson_097 is used to **prevent** the

suspension of the operating system. There is also no teaching or suggestion in the references that

the voice recognition system is able to perform the authentication-update process to authenticate

a particular user or process.

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Furthermore, there is nothing in either of the references that would suggest that the motivation for combining the references is known outside of the applicant's disclosure. Naito teaches the delay of a security mechanism and Johnson_097 teaches a voice recognition system that is able to distinguish between background noise and valid user inputs for the purpose of delaying suspension of a security mechanism. There is no teaching or suggestion that the valid user inputs are used for authentication updates. Instead, Johnson_097 teaches a threshold value that is "used to decide if an input on the voice input device 21 is a user input or a non-user input (such as background noise on a voice recognition device)" (col. 4, lines 22-25). This teaches away from using voice recognition for authentication because Johnson_097 is directed towards allowing an alternate means of input for delaying the activation of inactivity security mechanisms (see Title, Johnson_097) and does not teach or suggest authentication updates that occur after the expiration of a first time period.

The Office Action further states that one would have been motivated to make such modification in order to further enhance the usability of the system by preventing multiple inputs of user passwords and only requiring simple recognizable user inputs to delay activation of inactivity security mechanisms. The reasoning of "preventing multiple inputs of user passwords" begs the question because it is a necessary consequence of the claim language and does not address why the specific proposed modification would have been obvious. The reasoning of "only requiring simple recognizable user inputs to delay activation of inactivity security mechanisms" is not directed towards the claim limitation of performing authentication updates (which on the contrary, the combined references only teach detecting user inputs, and non-background noise inputs when using voice recognition to delay activation of security

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mechanisms). The delay of the activation of security mechanisms in no way authenticates

whether a particular user is operating the system. There is no suggestion, other than applicant's

own disclosure, to employ an authentication-update process during a second time interval that

occurs after the activation of a first security mechanism.

Accordingly, there is nothing in the references that would suggest incorporating the

claimed **authentication-update** process within a second predetermined time period **after the**

operating session is suspended. Thus, the teachings of Johnson_097 are merely directed towards

delay of the suspension of the operating system (which is before the expiration of the first time

period), and contain no suggestion of being incorporated in a **second** period that occurs **after the**

first time period.

As mentioned above, Naito fails to teach continuing the operating session if the user

performs the **authentication process** after the operating session is suspended and the second

predetermined time period is exceeded. In contrast, Naito teaches that the "second

predetermined time is a reference period of time for determining whether or not a password input

should be requested before recovering the task, and is called a 'security time'" (col. 4, lines 24-

28). Thus, the second predetermined time of Naito is used for determining **whether to perform**

an authentication process, and is not used to determine **whether an authentication has been**

performed.

As discussed above, the primary and secondary references both fail to teach a second

predetermined time period that relates to an authentication-update process, and do not singly or

in a motivated combination anticipate the limitations of claims 1, 12, and 13. Accordingly,

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claims 1, 12, and 13 are not obvious over Naito in view of Johnson_097 and are submitted to be
allowable.

Regarding claims 7, 18, and 29, Naito in view of Johnson_097 fails to teach performing
an authentication-update process comprising inputting a predetermined signal to the user-
operated device within the second predetermined time period. Instead, Johnson_097 teaches
registering an alternate input device that allows for the continued disabling of a security
mechanism (col. 3, lines 61-67). The registration process involves using a secured input device
to register an (unregistered) input device, wherein a threshold value is used to decide if input
from the voice input device is the user input or non-user input (such as background noise on the
voice recognition device) (col. 4, lines 1-25). This registration process is **not** an authentication-
update process because it does not **authenticate** a particular user, but instead merely
distinguishes between an arbitrary user and background noises.

The Office Action asserts that it would have been obvious to one of ordinary skill in the
art to modify the system of Naito so as to include an authentication process to delay locking up
of the user interface as per teachings of Johnson_097 because it would further enhance the
usability of the system by preventing multiple inputs of user passwords and only require simpler
recognizable user inputs to delay activation of inactivity security mechanisms. As mentioned
above, applicant traverses this assertion because Johnson_097 does not contain a teaching (or
suggestion) to perform an authentication-update process within a second predetermined time
period. In contrast, Johnson_097 **teaches away** from using an authentication process because
the audio input of the voice input device 21 is compared to recognizable, stored samples of valid
user input, for the purpose of distinguishing between a user input or a non-user input such as

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(background noise on a voice recognition device) (col. 4:20-31). Thus the audio input device can only determine the **presence** of a user at a terminal, but cannot be used to determine the **identity** of that user, and thus is not an authentication-update process as recited in the instant claims.

As discussed above, the primary and secondary references both fail to teach a second predetermined signal that relates to an authentication-update process, and do not singly or in a motivated combination anticipate the limitations of claims 7, 18, and 29. Accordingly, claims 7, 18, and 29 are not obvious over Naito in view of Johnson_097 and are submitted to be allowable.

Regarding claims 11, 22, and 33, Naito in view of Johnson_097 fails to teach performing an authentication-update process comprising input in a predetermined audio voice signal to the user-operated device within the second predetermined time period. As discussed above with regards to claims 7, 18, and 29, Naito in view of Johnson_097 merely uses a voice recognition system to determine the presence of the user, and fails to authenticate the user as recited by the instant claims.

As discussed above, the primary and secondary references both fail to teach a second predetermined signal that relates to an authentication-update process, and do not singly or in a motivated combination anticipate the limitations of claims 11, 22, and 33. Accordingly, claims 11, 22, and 33 are not obvious over Naito in view of Johnson_097 and are submitted to be allowable.

Claims 2, 13, and 24 stand rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 1, 12, and 23 above and further in view of U.S. Patent No. 5,682,475 (Johnson_475). Claims 2, 13, and 24 are allowable at least because of

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the reasons of allowability given for the claims above from which claims 2, 13, and 24 depend. Accordingly, claims 2, 13, and 24 are not obvious over Naito in view of Johnson_097 as applied to claims 1, 12, and 23 above and further in view Johnson_475 and are submitted to be allowable.

Claims 3-6, 14-17, and 25-28 stand rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 1, 12, and 23 above, and further in view of "System Mode Transition with Notification and Adoption," IBM Technical Disclosure Bulletin, September 1995, Vol. 38, Issue No. 9, pp. 153-154 (IBM). Claims 3-6, 14-17, and 25-28 are allowable at least because of the reasons for allowability given for the claims above from which claims 3-6, 14-17, and 25-28 depend.

Claims 8-10, 19-21, and 30-32 are rejected under 35 USC §103(a) as being unpatentable over Naito in view of Johnson_097 as applied to claims 7, 18, and 29 above and further in view of U.S. Patent No. 6,209,104 (Jalili). As discussed above, Naito in view Johnson_097 fails to teach or suggest continuing the operating session if the user performs an **authentication-update process** within a second predetermined time period after the operating session is suspended, and wherein the authentication-update process comprises inputting a predetermined signal to the user-operated device within the second predetermined time period. In contrast, Jalili merely teaches a method of secure data entry wherein data is inputted by selecting points on or approximate to the icons (col. 3, lines 1-19) such that the server subsystem is able to determine the input data from the user without directly exposing that data to observation or interception (col. 3, lines 19-23).

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The Office Action asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the combination of Naito in view of Johnson_097 so as to include the visual authentication process as taught by Jalili because this modification provides a system that is not easily susceptible to the over-the-shoulder problem. Applicant traverses this assertion because as discussed above, Naito in view of Johnson_097 fails to teach (or suggest) an authentication-update process within a second predetermined time period using a predetermined signal for authentication.

Furthermore, Jalili also fails to teach or suggest an authentication-update process within a second predetermined time period using a predetermined signal for authentication. Jalili teaches away from the present invention, because it presents a method of entering data using icons, for example, in a non-standard format (see Fig. 4 of Jalili), which **obfuscates data entry to both the user and to the passers-by,** and because the authentication-update process generally provides a more easily used interface as compared with a userid/password entry combination. Accordingly the proposed modification would render Naito unsuitable for its intended purpose because Naito arguably reduces the burdens on the user to fulfill security requirements, whereas Jalili increases the burdens on the user by using a non-obvious interface to reduce over-the-shoulder problems, for example.

As discussed above, the primary and secondary references both fail to teach an authentication-update process within a second predetermined time period using a predetermined signal for authentication, and do not singly or in a motivated combination anticipate the

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limitations of claims 8-10, 19-21, and 30-32. Accordingly, claims 8-10, 19-21, and 30-32 are not

obvious in view of the cited art and are submitted to be allowable.

Claim 34 stands rejected under 35 USC §103(a) as being unpatentable over Naito in view

of Johnson_097 as applied to claim 29 above, and further in view of U.S. Patent No. 6,282,553

(Flickner). As discussed above, Naito in view Johnson_097 fails to teach or suggest continuing

the operating session if the user performs an **authentication-update** process within a second

predetermined time period after the operating session is suspended, and wherein the

authentication-update process comprises inputting a predetermined signal to the user-operated

device within the second predetermined time period. In contrast, Flickner merely teaches a

computer-implemented method for gaze-assisted number generating including operating a gaze

tracking apparatus to monitor eye operation of the computer operator as the operator views a

virtual keypad having a plurality of keys.

The Office Action asserts that it would have been obvious to one having ordinary skill in

the art at the time the invention was made to further modify the combination of Naito and

Johnson_097 so as to include gaze-based authentication processes for the teachings of Flickner

because it is advantageous to use gaze-based authentication because it is accurate and

inexpensive. Applicant traverses this assertion because the proposed modification is too general

and would contemplate almost any alteration contemplated of Naito. Furthermore, the proposed

motivation does not suggest why a particular location can be used for a predetermined signal

used in an authentication-update process. None of the primary, secondary, or tertiary, references,

either singly, or in motivated combination, teach or suggest an **authentication-update process**

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within a second predetermined time period after the operating session is suspended, and wherein

the authentication-update process comprises inputting a predetermined signal to the user-

operated device within the second predetermined time period. Accordingly Claim 34 is not

rendered obvious by the prior art and is submitted to be allowable.

Regarding the Office Action's response to arguments, the Office Action states the

"modification of voice recognition method for delaying the activation of inactivity security

mechanisms taught by Johnson into the system of Naito comprising a second predetermined

period for delaying activation of inactivity security mechanisms teaches a second predetermined

time period that relates to an authentication-updated process, eliminating the need for keyboard

password authentication, further enhancing usability of the system by preventing multiple inputs

of user passwords and only requiring simpler recognizable user inputs to delay activation of

inactivity security mechanisms."

As mentioned above (with respect to claim 1 and others), the voice recognition system

fails to teach authentication (or an authentication-update process) and thus cannot be used to

overcome the failings of Johnson_097. Moreover, there is no teaching or suggestion (other than

in the applicant's own disclosure) for performing an authentication-update process after the first

predetermined time period. In contrast, Johnson_097 merely teaches delay of a security

mechanism after a predetermined time period and does not address a first and second time

period. Naito merely teaches a first and second time period but proposes using no authentication

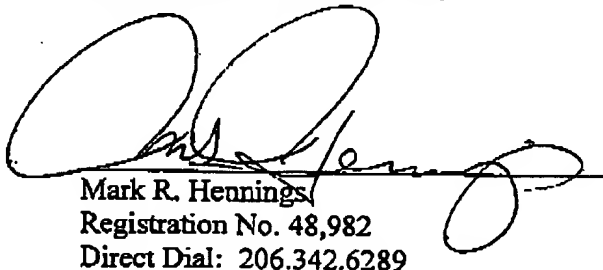between the first and second time periods. Accordingly, the references do not teach all claim

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limitations, and as discussed above, the proposed motivations for combining the references are improperly drawn.

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

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